



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/524,029	03/13/2000	Cynthia S. Bell	ITL.0333US (P8221)	6169
21906 7590 10/16/2007 TROP PRUNER & HU, PC 1616 S. VOSS ROAD, SUITE 750 HOUSTON, TX 77057-2631			EXAMINER BODDIE, WILLIAM	
			ART UNIT 2629	PAPER NUMBER
			MAIL DATE 10/16/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

09/524,029

Applicant(s)

BELL, CYNTHIA S.

Examiner

William L. Boddie

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on July 25, 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 and 5-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>See Continuation Sheet</u> .           |

Continuation of Attachment(s) 6). Other: Copy of JP 08-242398 and translation.

**DETAILED ACTION**

1. In view of the new reference, Murakami (JP 08-242398), PROSECUTION IS HEREBY REOPENED.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 3 and 7 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.
4. Claims 3 and 7 recite using a light meter circuit, with claim 7 further reciting that the light meter circuit produces a logarithmic representation of incident light received. These claims depend from amended claim 1 that now recites receiving an indicator into a plurality of sensors of an imager. In the application as filed there is no disclosure of this receiving step further comprising using a light meter circuit. The only light meter circuit disclosed is that of Figure 2 which is used in the first embodiment. This is the only circuit disclosed in the application as producing a logarithmic representation of incident light. This light meter circuit is not an imager and therefore the embodiment in which an imager receives ambient light does not mention the use of a light meter circuit.

Furthermore there is no disclosure that the imager of Figure 3 produces a logarithmic representation of the incident light received.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murakami (JP 08-242398) in view of Nishibe et al. (US 4,847,483).

**With respect to claim 1**, Murakami discloses, receiving an indicator (light of a given level via lens 10) of the ambient light for a system (electronic camera – 1A) having a display (LCD – 102) by accumulating energy into a plurality of sensors (image pick-up element 32), determining the indicator (level of the light is determined – [0026]), and automatically adjusting a brightness of the display based upon the indicator [0027].

In Murakami the indicator is determined by averaging the luminance over the entire image plane [0026], and therefore the determination of the indicator is not based upon an integration time derived on the basis of the accumulated energy. However, it is conventional in the art to determine the level of ambient light by deriving an integration time of an image sensor based upon accumulated light energy and using the value of the integration time as a determinate of light level as disclosed in Nishibe et al. (column 1, lines 12-13 and 41-42; column 2, lines 28-31). Note that the integration time is derived based upon the accumulated energy in that the length of the period of

Art Unit: 2629

integration depends on the level of the light, and further the indicator of light level is based on the period of time required for the integrated value to reach a predetermined value (column 2, lines 28-31). The arrangement in Nishibe et al. enables light measurement to be performed over a wide dynamic range (column 2, lines 16-18), a feature well known in the art to be important due to the wide range of light levels encountered in imaging operations (see for instance, column 1, lines 55-60).

Furthermore it is clear that the Nishibe et al. arrangement would be faster and less processing-intensive than the arrangement of Murakami since the need to compute an average light level over the entire image plane would not be necessary.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to employ in Murakami the method taught in Nishibe et al. to determine the indicator in order to enable the device to perform in an ambient environment having a large range of light levels and to reduce the time and burden of image processing.

**With respect to claim 3,** Murakami discloses the receiving indicator of the ambient light further comprises a light meter circuit. See section [0010] and note that photometry (light metering) is performed.

In addition, the Nishibe et al. circuit is also a light meter circuit in that it measures the level of incoming light (column 1, lines 41-42; column 2, lines 22-31).

**With respect to claim 6,** the accumulating energy in Murakami produces an analog signal [0021].

7. Claims 2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murakami (JP 08-242398) in view of Nishibe et al. (US 4,847,483) and further in view of Helms (US 5,760,760).

With respect to claim 2, Murakami and Nishibe et al. are silent as to how the indicator is used in adjusting display brightness. However, it is well known in the art to perform such an operation by using a brightness adjustment indicator in a look-up table as disclosed in column 4, lines 6-21 of Helms. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the indicator of Murakami and Nishibe et al. as an index in a look-up table as part of the operation of CPU35 in order to implement a reliable and well-established design for adjusting the brightness of a display on the basis of ambient light.

With respect to claim 5, Helms discloses receiving a brightness value for the display from the look-up table (column 4, lines 6-21).

8. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Murakami (JP 08-242398) in view of Nishibe et al. (US 4,847,483) and further in view of Miller et al. (US 6,411,306).

Murakami and Nishibe et al., do not explicitly disclose that using the light meter circuit comprises producing a logarithmic representation of the incident light received. However Miller et al. teach dynamically modifying, in response to ambient light levels, not only the brightness of a camera's display but its contrast as well (column 1, lines 16-

21; column 5, lines 40-67). The contrast adjustment is performed using an exponential representation of ambient light (column 5, lines 58-65). In performing the required calculation it would have been obvious to one of ordinary skill in the art at the time of the invention to output a logarithmic form of the ambient light instead of an exponential form since they are well known equivalents.

It would have been further obvious to provide, in the device of Murakami and Nishibe et al. the contrast-adjusting values taught by Miller et al. in addition to the brightness-adjusting values, in order to provide both adjustment features for the display, well-known in the art to be desirable (Miller et al.; column 1, lines 13-20; column 2, lines 59-63).

9. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Murakami (JP 08-242398) in view of Nishibe et al. (US 4,847,483) and further in view of Toffolo et al. (US 6,337,675).

Murakami and Nishibe et al. do not explicitly disclose the form in which the output of the light meter circuit is provided and therefore do not disclose that using the light meter circuit comprises producing a logarithmic representation of the incident light received. However it is well known in the art that when adjusting the brightness of a display on the basis of ambient lighting conditions, one can use a relationship between display brightness and ambient light level that is either linear, logarithmic, or exponential (column 1, lines 20-25; column 2, lines 14-28). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to produce in Murakami and



Art Unit: 2629

Nishibe et al. a logarithmic representation of the incident light received, since such is a form well known to be useful in performing dynamic display brightness adjustments.

10. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Murakami (JP 08-242398) in view of Nishibe et al. (US 4,847,483) and further in view of Ishikawa et al. (US 4,367,932).

Murakami and Nishibe et al., do not disclose that using the light meter circuit comprises producing a logarithmic representation of the incident light received. However, it is very old and well known in the art to use light metering to accomplish exposure control for a camera and to provide a logarithmic representation of incident light received when using a metering circuit for this purpose. For instance Ishikawa et al., disclose that logarithmic exposure control values are preferred over linear values in order to provide the dynamic range necessary to cope with the wide range of light levels encountered in typical photographing operation (column 2, lines 27-34 and 42-44). Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to use the light metering circuit of Murakami in an exposure control operation and to produce, when the light metering is being used for exposure control, a logarithmic representation of the incident light received in order to enable proper exposure control over a wide dynamic range.

Art Unit: 2629

**Conclusion**

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William L. Boddie whose telephone number is (571) 272-0666. The examiner can normally be reached on Monday through Friday, 7:30 - 4:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on (571) 272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Wlb  
10/9/07

**ANDREW I. FALE**  
**DIRECTOR**  
**TECHNOLOGY CENTER 2000**

*Andrew Fale*

*Sumati Lefkowitz*

**SUMATI LEFKOWITZ**  
**SUPERVISORY PATENT EXAMINER**